



# A RESPONSIBLE RESEARCH CLIMATE

*Findings from academic researchers in  
Amsterdam*

# OUTLINE

## Background

- Definition

## Methods

- Survey
- Focus groups

## Results

- Perceptions research climate & misbehaviours
- Characteristics & interventions

## Discussion

- Conclusion

# RESEARCH CULTURE

## Danish Code of Conduct for Research Integrity

November 2014

“Fostering a **culture of research integrity** is a key element for ensuring high quality and integrity in research.” (p.16)



“Provide an open, safe and inclusive **research culture...**” (p. 20)



The European  
Code of Conduct for  
Research Integrity  
REVISED EDITION



“Research institutions and organisations promote awareness and ensure a prevailing **culture of research integrity.**” (p. 5)

# BACKGROUND

“the *shared meaning* organisational members attach to the events, *policies, practices* and procedures they experience and the *behaviours* they see *rewarded*, supported, and *expected*.”



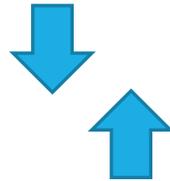
# RESEARCH INTEGRITY CLIMATE

The *fairer* people regard decisions and decision-making processes in their organization, the more likely they trust their organization, *abide* by decisions made and do not engage in questionable behaviour (Martinson, 2010)

# PREVIOUS RESEARCH

(Quantitative) evidence

- Anderson et al. 2007; De Vries et al. 2006
- Anderson et al. 1994; Crain et al. 2013
- Wells et al. 2014



# ARCA PROJECT

2 studies

- *Survey*
- *Focus groups*

2 pilot interventions

- *Superb Supervision - Mentoring your PhD student towards RCR*
- *Moral Case Deliberation with RI dilemmas*

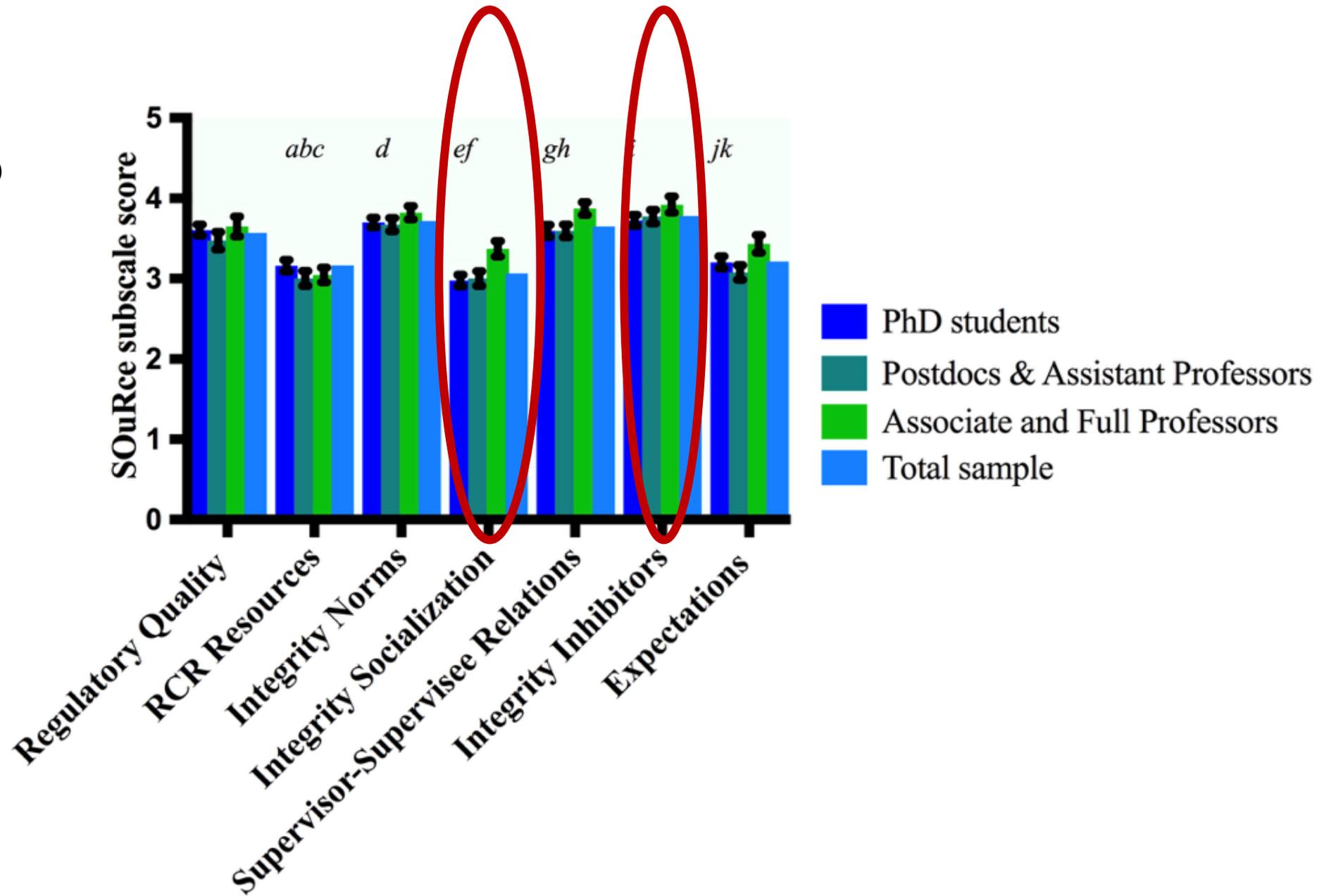
# SURVEY

Do researchers from different *academic ranks* and different *disciplinary fields* experience the research integrity climate differently?

► Stimuli:

- **Survey of Organisational Research Climate (SOuRCe)**
- Publication pressure Questionnaire (PPQr)
- 60 major and minor research misbehaviours

# RESULTS



# SURVEY

Which research misbehaviours do academic researchers in Amsterdam perceive as *most detrimental*?

► Stimuli:

- Survey of Organisational Research Climate (SOuRCe)
- Publication Pressure Questionnaire (PPQr)
- **60 major and minor research misbehaviours**

How often have you observed the behaviour in the last three years?

If you were to observe this behaviour, how large would its impact be on the validity of the findings of the study at issue?

**“Report an incorrect downwardly rounded p-value”**

# FREQUENCY \* IMPACT

1. Insufficiently supervising or mentoring junior co-workers
2. Let own convictions influence conclusions substantially
3. Choose a clearly inadequate research design or using evidently unsuitable measurement instruments
4. Not publish a valid 'negative' study
5. Give insufficient attention to the equipment, skills or expertise which are essential to perform the study

# SURVEY

To what extent can individual, *climate* and publication factors explain variance in frequent research misbehaviours?

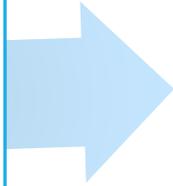
► Stimuli:

- **Survey of Organisational Research Climate (SOuRCe)**
- **60 major and minor research misbehaviours**
- **Publication Pressure Questionnaire (PPQr)**

**Publication  
factors**



**Climate  
factors**



**Personal  
factors**



**Research  
misbehavior**



# RESULTS

		Outcome = perceived frequency	Outcome = perceived impact
Variables added <sup>1</sup>	Explained variance <sup>0</sup>		
Individual factors <sup>a</sup>	6.74%		
<i>Climate factors<sup>b</sup></i>	<b>22.22%</b>		
Publication factors <sup>c</sup>	15.85%		

**Table 3.** Explained variance of groups of factors using hierarchical mixed modelling.

<sup>0</sup> = this is the explained variance when *only* the individual factors are added, i.e. just the climate factors explain 22.22% of variance perceived frequency of research misbehaviours.

<sup>1</sup> = the models are hierarchical, factors are added consecutively, i.e. the explained variance is 31.65% when both individual as well as climate factors are added to the model.

<sup>2</sup> = model fit is the difference between the -2 Log likelihood of the previous model, i.e. 74 is the difference between the intercept-only model and the model with individual factors added, etc.

<sup>3</sup> = contrasted with the previous model.

# FOCUS GROUPS

What are *key characteristics* of a responsible research climate?  
Which *interventions* alleviate barriers and *improve* the research climate where necessary?

► Stimuli:

- **Topic guide**

# METHODS

Moderator

- Observer

Inductive content analysis

- *Climate*

Academic rank	PhD student	Postdocs and assistant professor	Associate and full professor
<i>Disciplinary field</i>			
Biomedical sciences	5 <sup>/5</sup>	5 <sup>/4</sup>	4 <sup>/0</sup>
Natural sciences	4 <sup>E/0</sup>	3 <sup>/0</sup>	4 <sup>/0</sup>
Social sciences	4 <sup>E/3</sup>	7 <sup>E/3</sup>	4 <sup>E/1</sup>
Humanities	6 <sup>E/5</sup>	5 <sup>E/5</sup>	7 <sup>/3</sup>

<sup>E</sup>Focus group was conducted in English; other focus groups were conducted in Dutch

<sup>/x</sup>Number of female participants

# RESPONSIBLE RESEARCH CLIMATE

## Fair evaluation

I think an evaluation in which you can excel in **one of the topics** and don't have to excel in all of them, so either you are required to have average scores on all topics that would be okay, or you can excel on a few of these and then **perhaps not excel so much in others**. I'm really fed up with all the boxes that have to be ticked and the list is getting longer and longer, and **there's no priorities there**.

—Assistant professor, social sciences

# RESPONSIBLE RESEARCH CLIMATE

Fair evaluation

Openness

Openness is also that you *feel open to discuss with others*, if you feel that they are, maybe not mindfully, but they are doing things in a slightly different or wrong way in your opinion. That you can discuss this with the other person, *without him or her feeling attacked by this*. So that there is really an atmosphere of okay, *we just trying all the best that we can* and if somebody is doing something slightly wrong, it's not a problem. We just *work it out* and we go on and we *continue to do it better*.

—Associate professor, biomedical sciences

# RESPONSIBLE RESEARCH CLIMATE

Fair evaluation

Openness

Sufficient time

That means having time to *think and write*, because often the teaching time uses up all the research time so *being able to protect that time*.

— *Assistant professor, humanities*



# RESPONSIBLE RESEARCH CLIMATE

Fair evaluation

So, you need to approach research with integrity and be the ***first to doubt your own research results.***

Openness

Sufficient time

— *Full professor, natural sciences*

Integrity

# RESPONSIBLE RESEARCH CLIMATE

Fair evaluation

Openness

Sufficient time

Integrity

Trust

To trust both the one working *beneath* you as well those *above* you and to assume that they *conduct good research* and that they claim something *for a reason*.

—*PhD student, biomedical sciences*

# RESPONSIBLE RESEARCH CLIMATE

Fair evaluation

Openness

Sufficient time

Integrity

Trust

Freedom

You need to have freedom in *choice of topic*... Ultimately you are best at judging what has *potential* in your area of expertise, what will lead to *success or changes*...

—*Full professor, natural sciences*

# INTERVENTIONS

## Improve support

In terms of say, the respect for professors to **make decisions** versus the **authority to make [hiring] decisions...** And it's a really negative signal of trust, if you are not being seen as **the one who can actually best think about hiring decisions**, about **promotion decisions**, about what task you want to ask from whom.

—*Full professor, natural sciences*

# INTERVENTIONS

Improve support

Discuss expectations

I'm aware of colleagues who are **very conscious** about when they are sending emails. Opposite to what you're saying, **they work on the weekends** but they make sure **not to send their PhDs replies** on weekends or in the evenings because they **don't want to get that message across**.

—Assistant professor, social sciences

# INTERVENTIONS

Improve support

Discuss expectations

Improve supervision

PhD student 1: there are **courses** for principal investigators on how to supervise PhD students but they all **don't have time...**

PhD student 2: or you should **make it compulsory**, that they have to repeat the course each year or something...

PhD student 3: yes, and **if you don't pass**, you are **not allowed to be a supervisor!**

—*PhD students, biomedical sciences*

# DISCUSSION

## Other factors

- “Apples”

## Limitations

- Low response rate
- No ‘fly on the wall’

## Looking forward

- Conceptual consensus
- Rigorous designs



# TOWARDS A RESPONSIBLE RESEARCH CLIMATE



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# Questions?

More information available in my PhD thesis: ***Towards a Responsible Research Climate***

Also available via: <https://amsterdamresearchclimate.nl/publications/>

Or **e-mail** me: [tamarinde.haven@charite.de](mailto:tamarinde.haven@charite.de)